

C3
respect to the base and being movable back and forth between an extended position and a retracted position, and an open relief area defined intermediately between the outer portion and the base within the scrap stripper that permits the outer flexible portion to flex back and forth between the extended and retracted positions.

Please add new claims 27 – 29 as follows:

27. The rotary cutting die of claim 1 wherein in the retracted position the finger and base are both compressed.

28. The rotary cutting die of claim 1 wherein the scrap stripper is constructed independently of the base.

29. The rotary cutting die of claim 1 wherein the finger of the scrap stripper in the extended position assumes a straight configuration.

REMARKS

The comments of the Examiner as set forth in the Official Office Action of March 14, 2001 have been carefully studied and reviewed. In this response, claims 11, 12 and 13 have been cancelled without prejudice, claims 1, 8, 14 and 15 have been amended, and new claims 27, 28 and 29 have been added. For the reasons set forth below, it is respectfully urged that the present application is in condition for allowance and allowance is respectfully solicited.

First, the Examiner in paragraph 6 of the Official Office Action has lodged a number of 35 U.S.C. 112 rejections. Some of the rejections raised by the Examiner have been dealt with. For example, in claim 8 the term "it" has been appropriately replaced. In addition, claims 11, 12 and 13 have been cancelled herein without prejudice. However, with respect to the remaining Section 112 rejections, especially those dealing with antecedent basis, it is respectfully urged that the terms questioned by the patent office do not require any more of an antecedent than is

provided by the claims. Applicant will stand by the position set forth in the proceeding appeal brief that was filed in this case before these new grounds of rejections were advanced by the patent office. In particular, the Examiner is referred to the discussion that takes place at page 4 in the prior appeal brief.

The Examiner has rejected all of the presently pending claims under both 35 U.S.C. 102 and 35 U.S.C. 103. Anticipation under 35 U.S.C. § 102 requires the disclosure in a single piece of prior art of each and every limitation of a claimed invention. *Rockwell Intern. Corp. v. U.S.*, 147 F.3d 1358, 47 U.S.P.Q.2d 1027 (Fed. Cir. 1998). That is, every element and limitation of the claim must be identically shown in a single reference. *In re Bond*, 910 F.2d 831, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990).

While it is true that the PTO may give a claim its broadest reasonable meaning when determining patentability, *Burlington Industries, Inc., v. Quigg*, 822 F.2d 1581 (Fed. Cir. 1987), the Examiner cannot ignore the “reasonableness” limitation. In differentiating between reasonable and unreasonable interpretations, the basic rules of claim interpretation apply.

First, terms in a claim must be given their plain and ordinary meaning unless the applicant has clearly provided a contrary definition in the specification. *In re Zletz*, 893 F.2d 319 (Fed. Cir. 1989). *See also*, MPEP § 2111.01. Second, terms and phrases of a claim must be construed in harmony with the Applicant’s written description. “[The mandate of broadest reasonable interpretation during prosecution] does not relieve the PTO of its essential task of examining the entire patent disclosure to discern the meaning of claim words and phrases.” *Atlantic Thermoplastics Co., Inc. v. Faytex Corp.*, 970 F.2d 834 (Fed. Cir. 1992), *reh’g in banc denied*, 974 F.2d 1279 (Fed. Cir. 1992). Further, the interpretation given to claim terms and phrases must be consistent with the interpretation that would be given by one skilled in the art.

In re Cortright, 165 F.3d 1353 (Fed. Cir. 1999). “It is axiomatic that, in proceedings before the PTO, . . . claim language should be read in light of the specification as it would be interpreted by one of ordinary skill in the art. *In re Bond*, 910 F.2d 831 (Fed. Cir. 1990). *See also*, MPEP § 2111.01. Finally, what the applicant states the claims to mean is vital to an examination of patentability. “When the applicant states the meaning that the claim terms are intended to have, the claims are examined with that meaning, in order to achieve a complete exploration of the applicant’s invention and its relation to the prior art.” *In re Zletz*, 893 F.2d 319 (Fed. Cir. 1989). “The inquiry during examination is patentability of the invention as ‘the applicant regards’ it . . .” *Id.*

The PTO has the burden under § 103 to establish a *prima facie* case of obviousness.

When combining references, the PTO can satisfy this burden only by showing some objective teaching in the prior art, or knowledge generally available to one of ordinary skill in the art, that would motivate one to combine the relevant teachings of the references. *In re Fine*, 837 F.2d 1071, 1074, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). Obviousness cannot be established by

combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination. *ACS Hosp. Sys., Inc. v. Montefiore Hosp.*, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant’s disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991).

First, with respect to the specific rejections, claims 1-4, 6, 15 –17, 19, 20, 21, 24 and 26 stand rejected as being anticipated by Rilitz, et. al. Rilitz does not anticipate the claims in this case. A close study of the Rilitz patent shows that it relates to an apparatus for cross-cutting

running webs. The Examiner points to two guides, 13 and 14, and incorrectly refers to them as flexible fingers in the context of the present invention. Guides 13 and 14 have nothing whatsoever to do with a cutting die for a corrugated board or even scrap ejection. Indeed, as the Rilitz patent explains, "The guide 13 can steer the adjacent portion of the web towards the locus where the cutting edge 18A, 11A of the knives 8, 11 cooperate during each revolution of the conveyors to sever the web 3 and separate a length 26 of the flexible material from the thus obtained leader 25 at the front end of the remaining portion of the web." Rilitz patent, column 4, lines 44 – 49. In other words, the guide 13 simply steers a portion of the web towards a point where the knives come together and cut the web. They are guides and not flexible fingers that eject scrap.

All of the claims in question require at least one scrap stripper. There is no scrap stripper in Rilitz at all. Therefore, there cannot be any anticipation in this case.

Essentially the same claims have been rejected as being anticipated by the patent to Okonski. Okonski does not anticipate either. Okonski relates to a cutting die system that includes a flexible die plate 30 that has cut out push pattern projections 40 that extend upwardly from the die plate. In other words, the projections 40 are actually cut from the die plate 30. Once they are cut and the die plate is bent, these projections tend to stick out in the manner illustrated in figures 3 and 4.

There are a number of significant differences between the claimed invention here and the teachings of Okonski. First, Okonski has nothing whatsoever do with cutting corrugated board and stripping cut scrap from corrugated board. Secondly, the scrap stripper or strippers that form a part of the present invention are compressible. That is, as the base and finger of a scrap stripper moves through the nip, the finger bends back onto the base and both the base and the

finger are compressed together. Claim 1 has been amended to define the scrap stripper as not only being resilient but compressible. Compressible herein means that the material that makes up the base and the finger can be compressed, that that is reduced in size or volume as the finger and base move through the nip. That is not the case in the Okonski patent. The projections 40, which are formed from and cut from the die plate, may flex back and forth but they are not constructed of compressible material. In fact, as set forth in column 4, lines 7 – 13, the die plate and its projections 40 are made from the stainless steel, carbon steel or the like.

All of the claims are defined in terms of one or more scrap strippers where the stripper is constructed of both resilient and compressible material. Therefore, the claims of the present application are not anticipated by Okonski.

Finally, the Examiner has rejected claims 1 – 21, 24 and 26 as being obvious in view of Smithwick, Jr., et. al. in view of Okonski. It is respectfully urged that the Examiner has not made out a prima facie case of obviousness here. As discussed above, it is clearly the law that there must be some motivation or incentive in the references themselves, or at least in the general knowledge of one of ordinary skill in the art, to support the combining of references. There is nothing here that would motivate a person of ordinary skill in the art to make the combination. Here the only motivation for combining Smithwick with Okonski is applicant's disclosure and such a combination based on that hindsight is impermissible as a matter of law.

First, Okonski has nothing to do with ejecting scrap from corrugated board. Indeed, note that the thickness HI of plate 30 will typically be from about 0.003 – 0.060 inches. Okonski, column 4, lines 13 – 14. The metal projections cut from the plate 30 will not eject corrugated scrap from corrugated board. A person of ordinary skill in the art knowing the difficulties and the forces required to eject scrap from corrugated board would not be motivated or inclined to

combine the teachings of Okonski with Smithwick, et. al.

Next, the scrap ejector of Smithwick, et. al. is intended for use in slots. Note that the elongated scrap ejectors of Smithwick are basically enclosed within a slot, and bounded by the blades 112. The projections 40 that extend from the die plate 30 of Okonski are not intended to be used in slot but are intended to be used in a wide area that is occupied by a series of the projections 40. Thus, this would further discourage the combination and is further evidence that there is no motivation to combine.

The Examiner has indicated that it would have been obvious to the ordinary artisan to provide the device and method of Smithwick with the finger extending over the base of the stripper at an acute angle as taught by Okonski in order to enhance the absorption of the compression forces without comprising the longitudinally directed force required to free the scrap. That cannot be a motivation to combine and the patent office cannot rely on that to establish a prima facie case of obviousness. This is precisely what one of ordinary skill would avoid. In short, one does not want to increase or enhance the compressive force. That is not desirable because it would inhibit the ability of the cutting die to cut the scrap and if you can not cut the scrap you cannot eject the scrap. In short, if it were desirable to enhance the absorption of the compressive forces, one would simply make the scrap ejector of Smithwick higher. Thus, the realities teach against the very basis that the patent office puts forth for combining the two patents. In short, the motivation for combining Smithwick and Okonski as set forth by the patent office is not in fact a motivation or suggestion at all. The entire premise for the motivation fails.

For the foregoing reasons, the patent office has failed to make out a prima facie case of obviousness as there is no motivation or suggestion in the prior art to combine Smithwick with

Okonski. The present application is in condition for allowance and allowance is respectfully requested.

Respectfully submitted,

By:

COATS & BENNETT, P.L.L.C.

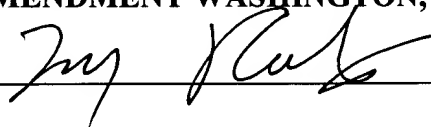

Larry L. Coats
Registration No. 25,620

P.O. Box 5
Raleigh, N.C. 27602
Telephone: (919) 854-1844

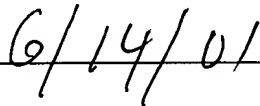
CERTIFICATE OF MAILING

I HEREBY CERTIFY THAT THIS DOCUMENT IS BEING DEPOSITED WITH THE UNITED STATE POSTAL SERVICE AS FIRST CLASS MAIL, POSTAGE PREPAID, IN AN ENVELOPE ADDRESSED TO: **ASSISTANT COMMISSIONER FOR PATENTS, BOX NON-FEE AMENDMENT WASHINGTON, D.C. 20231**

Signature: _____



Date: _____





MARKED UP VERSION OF AMENDED CLAIMS

RECEIVED
JUN 20 2001
TC 3700 MAIL ROOM

What is claimed is:

1. (Amended Twice) A rotary cutting die for cooperating with a rotary anvil to cut corrugated board comprising:
 - (a) a base;
 - (b) at least one scrap cutting blade secured to the base of the cutting die for cutting a piece of scrap from a sheet of corrugated board that is directed through a nip defined between the cutting die and the anvil;
 - (c) at least one scrap stripper mounted to the base adjacent the blade for stripping a cut scrap piece from the blade and for urging the cut scrap piece against the anvil as the cut scrap piece exits the nip;
 - (d) at least one scrap stripper being constructed of a resilient and compressible material and including a base, a flexible finger integral with the base and extending outwardly over the base and at an acute angle with respect to the base such that an opening is defined between the angled finger and the base; and
 - (e) wherein the flexible finger is movable between a retracted position where the finger lies adjacent the base and an extended position where at least a portion of the finger is separated from the base.
8. A method of cutting corrugated board passing between a rotary cutting die and an anvil, stripping one or more cut scrap pieces from a scrap cutting blade, and directing the cut scrap from the cutting die and anvil, comprising:
 - (a) directing a sheet of corrugated board through a nip area defined between the cutting die and anvil;

(b) cutting one or more scrap pieces from the corrugated board as it passes through the nip;

(c) utilizing a scrap stripper having a base and a flexible, angled finger to strip the cut scrap piece from the scrap blade and to control the direction of movement of the scrap piece as the scrap piece exits the nip, and wherein the flexible finger is integral with the base and extends outwardly over the base at an acute angle with respect to the base such that an opening is defined between the angled finger and the base;

(d) compressing the scrap stripper between the cutting die and the scrap piece by bending and compressing the finger against the base, closing the opening existing between the angled finger and the base, and compressing both the finger and base as the scrap stripper moves through the nip;

(e) expanding the scrap stripper as [it] the scrap stripper moves from the nip and engaging the cut scrap piece and stripping it from the scrap cutting blade; and

(f) extending the flexible finger outwardly as the scrap stripper moves from the nip and engaging the cut scrap piece with the extended finger and holding the cut scrap piece against the anvil with the finger such that the anvil tends to direct the cut scrap piece away from the nip and away from the cutting die and anvil.

14. The method of claim [13] 8 wherein the angle formed between the base and the finger is approximately 30-75 degrees.

15. A rotary cutting die having one or more scrap strippers for stripping cut scrap pieces from one or more scrap cutting blades associated with the cutting die comprising;

(a) a board;

(b) at least one blade mounted on the board for cutting scrap;

(c) at least one resilient scrap stripper formed independently of the board and mounted on the board adjacent the scrap cutting blade for stripping a cut scrap piece from the blade; and

(d) the scrap stripper being constructed of a compressible material and including a base, an outer flexible portion extending outwardly from the base and at an acute angle with respect to the base and being movable back and forth between an extended position and a retracted position, and an open relief area defined intermediately between the outer portion and the base within the scrap stripper that permits the outer flexible portion to flex back and forth between the extended and retracted positions.